Our rationale for changing the lesson plan, “Characteristics of Living Things”, was because the

existing plan did not meet the needs of diverse learners. The original plan was limited to written

scientific text and pictures presented on an overhead projector. For students with disabilities, this type

of lesson can be challenging. By altering the curriculum, instruction and materials, diverse learners

will benefit from the added flexibility that is presented to them.

There are a variety of disabilities that we addressed when changing the lesson plan. Those include

students with motor impairments that cause difficulties with their writing skills, learning disabilities,

cognitive discrepancies, attention and behavioral disorders. Specifically, because the original plan was

predominantly visual, students with other types of intelligences would be at a disadvantage. We have

added alternative ways of presenting the materials to meet the needs of students who’s learning styles

are not being addressed when being taught the traditional way.

For students with motor skill impairments, we added WriteOutLoud, and Co:Writer, software

programs that assists them with written assignments. In WriteOutLoud, the student s receive speech

feedback when they type, so they can independently check their work for errors in spelling, and

grammar. Co:Writer helps students with grammar and vocabulary. We also included an

adaptive device to help with stabilization during computer use, such as a mobile arm support. We

utilized internet websites, such as WebQuest, to increase motivation of students who normally are

not able to concentrate or understand traditional text-heavy lessons. Students would be allowed to go

to different stations to keep them motivated and interested in the lesson. Samples or specimens of

unicellular and muliticellular organisms were available for hands-on learning.

We adapted the lesson plan to be aligned with Universal Design for Learning philosophy, which is

to accommodate all students. We learned that by making changes to the environment before the

students are even in the classroom, it becomes less necessary to retro-fit the instruction when actual

classes begin. By offering flexibility, in both teaching style and physical environment, UDL prevents

teachers from having to “water down” their curriculum. All students can be included in the education

process and be successful. As stated in “Assistive Technology –Access for All Students”, UDL provides

multiple representations of information, multiple means for students to express their learning, and

multiple ways to motivate and engage students “ .

We learned that UDL is more than using technology- the two can go hand in hand in the

classroom. We plan to use UDL as a means to create a classroom environment that incorporates the

needs of both general education and special education students. The more flexible teachers are in

their learning methods and materials, the less barriers students will encounter. UDL is beneficial to all

learners; it acknowledges multiple intelligences, creates a more empowering learning environment,

and increases the potential for successful learning.

Technology integration has opened the doors for many types of learners. Not only does it

expand the resources available to students, it can increase their independence and improve their social

skills. There is a wide variety of products available to meet the specific needs of typical and atypical

learners. It is important for teachers to be aware of the individual needs of their students in order to

provide the most appropriate assistive technology for their specific situation. Both simple low- tech

devices and sophisticated high-tech software programs can be deemed appropriate for a student,

depending on the individual goals that the student may have. Teachers who are able to integrate

assistive technology successfully in their classrooms will enhance the lives of students with and without

disabilities.

Obviously, teachers must be mindful of meeting the academic standards required by the State.

Using technology as a tool for teaching content to students in the classroom is vital for there to be

a successful educational outcome. Assistive technology is a tool that can maximize the potential for

students with disabilities to meet the goals of a challenging curriculum. There are vast amounts of AT

resources available to accommodate and modify lesson plans for all academic subjects. When deciding

on a particular AT device, we need to determine whether it will help the student attain his IEP and

curricular goals. Also, the technology should be something that is used in a consistent manner in order

to increase the likelihood of success.

Working collaboratively to adapt the lesson plan allowed the two of us to share our resources.

We were able to develop a more comprehensive lesson plan by building off of each other’s prior

knowledge and experiences. We shared what we saw being done in classrooms and brainstormed

accommodations that could be added to the lesson plan to better meet diverse needs. By learning from

each other, we increased our individual effectiveness and created a more thorough lesson plan.

This collaborative activity illustrated how knowledge-building can take place when working with others. Completing this assignment has helped us to see the role collaboration could play in the special education field. We hope to use this approach as teachers to meet the needs of our future students.

We used several web resources when developing our lesson plan. A couple of these sites are listed below.

* <http://www.donjohnston.com>
* <http://www.sammonspreston.com>

In addition, we also utilized a tutorial and reference guides that provided “tech tips” for CoWriter 4000 and WriteOutLoud.

* Cowriter & WriteOutLoud Student Tutorial.doc
* CoWriter 4000 Tech Tips.doc
* WriteOutLoud Tech Tips.doc

We were impressed with CoWriter 4000 and WriteOutLoud, therefore we chose to use them as modifications to the procedures of our revised lesson plan. As a result, we feel that Cowriter 4000 and WriteOutLoud will change the instruction and teaching delivery of the lesson plan to better meet the needs of students with disabilities.